

CALIFORNIA REDWOOD LUMBER

EXCLUSIVE SELLING AGENTS
THE A. SHERMAN LUMBER CO.
NO. 1 MADISON AVE.
N. Y. CITY

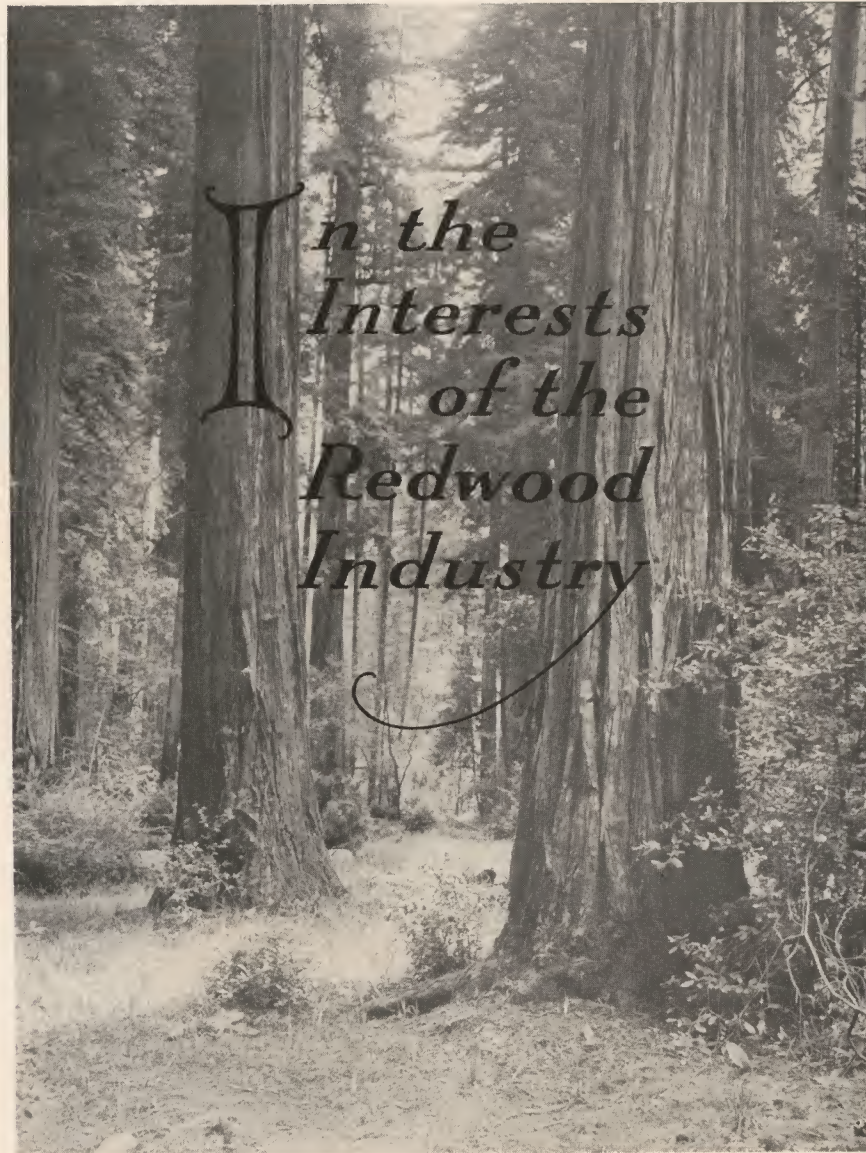
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EVERLASTING

REDWOOD

SANITARY

*The ultimate choice of all people
who are farsighted enough to in-
vestigate before they build. ££*

*The following pages will interest the Individual, the
prospective Builder, Consumer and Lumber Dealer.*

The REDWOOD of California (*Sequoia sempervirens*) is one of the State's most valuable assets, and is found in no other part of the world. It occupies a strip of country, being confined almost entirely to the counties of Del Norte, Humboldt and Mendocino, twenty to forty miles wide from the Oregon State line to Monterey, a distance of about five hundred and fifty miles. The growth is so dense, and the trees so large, that the supply of standing timber is estimated at not less than seventy-five billion feet. The Redwood grows to a greater height than any other American tree. On the slopes two hundred and twenty-five feet is about its maximum height and ten feet its greatest diameter, while on the flats, under better conditions, it grows to be 350 feet high, with a diameter of twenty feet. Most of the Redwoods cut are from 400 to 800 years old. The oldest tree found during investigation began life 1,370 years ago. The tree, when normal, has a straight, slightly tapered bole, clear for more than 100 feet, and a crown of horizontal branches that may occupy a third to a half of its total length. In a virgin Redwood forest, the large trees outnumber the small ones by at least 70 per cent. The average yield of an acre of Redwood forest is about 85,000 feet. The amount of timber got out of a forest is only a small proportion of what the stand contained. The enemies of the Redwood are few, and it suffers from them less than other trees.

The present production is about 550,000,000 feet per annum, and allowing for the natural increase that has and will take place when the merits of this wood become widely known, there is over a century's supply to look forward to.

It should and is now about to take the place to which it is entitled by its indisputable and varied utility. Redwood possesses qualities which fit it for many uses. In color it shades from light cherry to dark mahogany; its grain is usually fine, straight and even, its weight is light, and its consistency firm but soft. It is easily worked, takes a beautiful polish, and is very durable. It resists decay so well that trees which have lain five hundred years in the forest have been sent to the mill and sawed into lumber. The wood is without resin, therefore igniting slowly and offering a strong resistance to fire. It is immune from the ravages of insects, especially white ants, because of an acid element it contains, and possesses lasting qualities scarcely equalled by any other wood.

Owing to its varied usages as outlined in this book, and its many advantages over other woods, Redwood is placed in a class by itself.



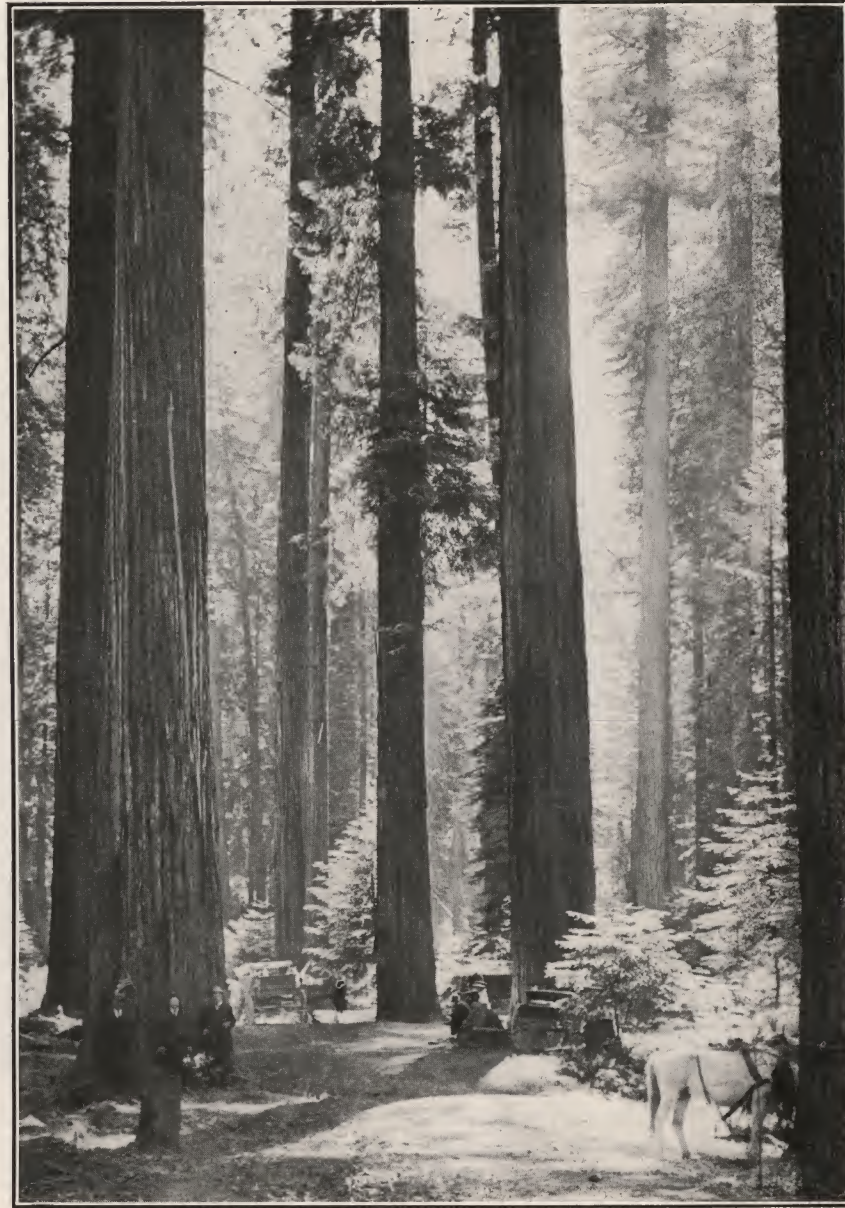
Eureka, Fort Bragg, Noyo and Caspar are the principal loading ports for Redwood lumber shipped to foreign countries. Small parcels are usually brought from the above places and other small ports to San Francisco and elsewhere for trans-shipment.

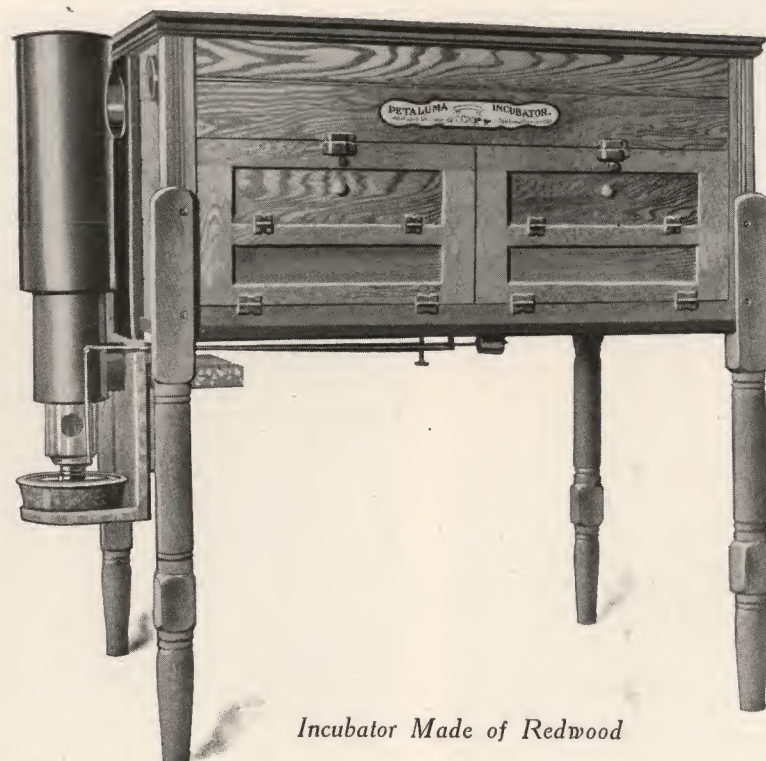


Mileage from San Francisco	
Caspar	125 miles
Noyo	129 "
Fort Bragg	130 "
Humboldt Bay	216 "
<hr/>	
Columbia River	540 "
Willapa Harbor	564 "
Grays Harbor	588 "
Puget Sound	570 "

By error of Printer the Mileage from San Francisco to Puget Sound was made to read 570 instead of 750 miles.

CALIFORNIA—THE HOME OF THE REDWOOD





Incubator Made of Redwood

EXTRACTS FROM TESTIMONIALS

From Petaluma Incubator Co., Petaluma, Cal.

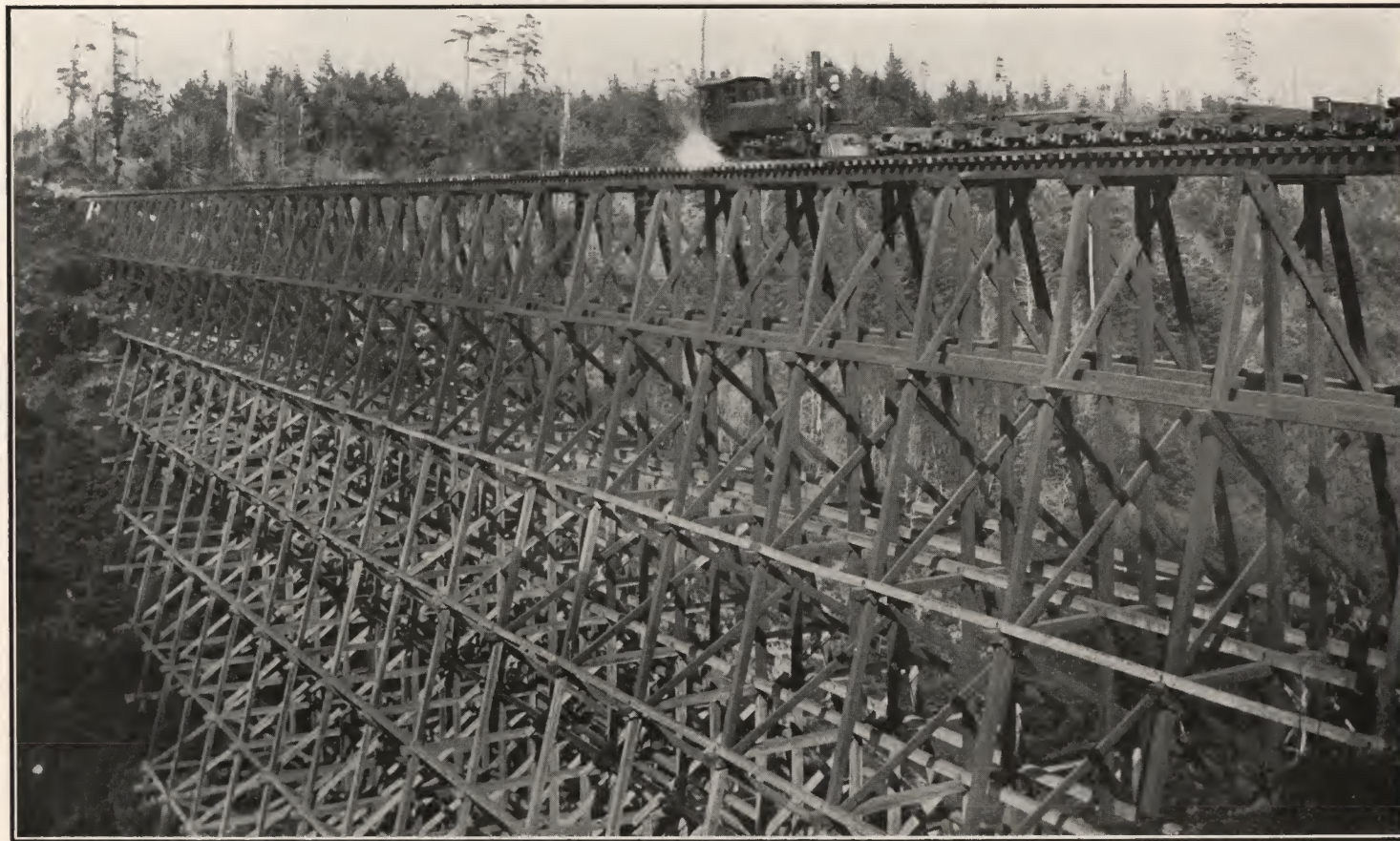
We use Redwood for our incubators and brooders and will say that to use this lumber in incubators and brooders is one of the hardest tests to which it can be put, for in operating, a temperature of over 100 degrees Fahrenheit is maintained oftentimes for several months in succession, while during the balance of the year the incubators are subjected to dampness in the houses, and where ground floors are used, to extreme dampness. . . . Redwood lumber in incubators has proven to be the *best* in all the varied *climatic changes throughout the world*, from Alaska in the Northern Hemisphere to South Africa in the Southern, Australia, etc. . . . Redwood lumber when properly seasoned does not change, in other words does not shrink or swell like some other woods. There is nothing equal to Redwood for particular work such as ours, for pattern making, etc., etc.

From Geo. H. Lee Co., Los Angeles, Cal., and Omaha, Nebraska.

We have used Redwood in the manufacture of our incubators and brooders ever since we started making them. We have experimented from time to time with other woods, but have never been able to receive the same satisfaction as with Redwood, because there is no other wood that will submit as readily and with as *little damage* to the *extreme* of heat and *moisture* that obtain in an incubator or brooder.

CALIFORNIA REDWOOD LUMBER

Used for all kinds of railway construction. Its value and lasting qualities as a railway tie or sleeper are undisputed. Ties have been known to last longer than thirty years. Large quantities are shipped to Mexico and South America, etc. California practically uses them entirely on all its railroad and electric lines.



This bridge is built entirely of Redwood. It is 640 feet long, 144 feet high and was constructed in 1906. A former bridge of the same dimensions, also all Redwood, and built in the same spot in 1884, was wrecked by earthquake in 1906, and was at that time in good order and condition.

REDWOOD IS USED FOR
VARIOUS PURPOSES IN
HOUSE BUILDING, ESPECIAL-
LY INTERIOR AND OUTSIDE
FINISH.

A SHINGLED ROOF WILL
LAST LONGER THAN ANY
OTHER ROOF.



A Redwood Giant.

WORKS EASY AND HOLDS
PAINT WELL.

IT IS FREE FROM PITCH,
AND DOES NOT SHRINK.

ADAPTABLE FOR ALL
KINDS OF PATTERN WORK.

CALIFORNIA REDWOOD LUMBER

All architects and builders admit and agree that the finest results can be obtained from its use either in its native or high-polished surface.



Peeling the Bark from Redwood Logs

SUN DOES NOT CRACK
REDWOOD.

WATER DOES NOT ROT IT.

NON-RESINOUS.



UNSURPASSED FOR
WAINSCOTING,
PANEL WORK,
CASING,
SHELVING,
CEILING,
DOORS,
SASH STOCK,
MOULDINGS,
POSTS, ETC.

A Large Redwood Tree

EXTRACT FROM LETTERS CONCERNING REDWOOD FOR SILO PURPOSES

From the McClure Company, Saginaw, Mich.

It is our ambition to push the sale of Redwood and eventually make it replace entirely in the construction of the Saginaw silo.

It has been positively demonstrated to us in the actual use of Redwood Silos that Redwood makes the ideal silo material. The fact that Redwood does not shrink or swell is possibly the greatest advantage in silo construction. Then again, there is the permanency of the structure, due to the rot-resisting quality of the wood.

We are enthusiastic about Redwood; our salesmen are enthusiastic about it, and they are pioneering in sections of the country that have never heard of Redwood; and because this wonderful material is so new to so many sections of the country, our men are not making the progress as fast as we would have them do. In other words, they are only "marking time" on the sale of Redwood, because people will not take up with a new thing that they have only heard about from one source.

We never brought greater pressure to bear on our salesmen and our agency organization than we have been doing this present year, and it is very discouraging to us to have sales for coming into this office when we know they should be Redwood.

Redwood must be more widely known, and to make Redwood known it must be advertised. We are spending no little amount of money to bring Redwood to the front, but we are impatient because it is taking our single-handed efforts such a length of time.

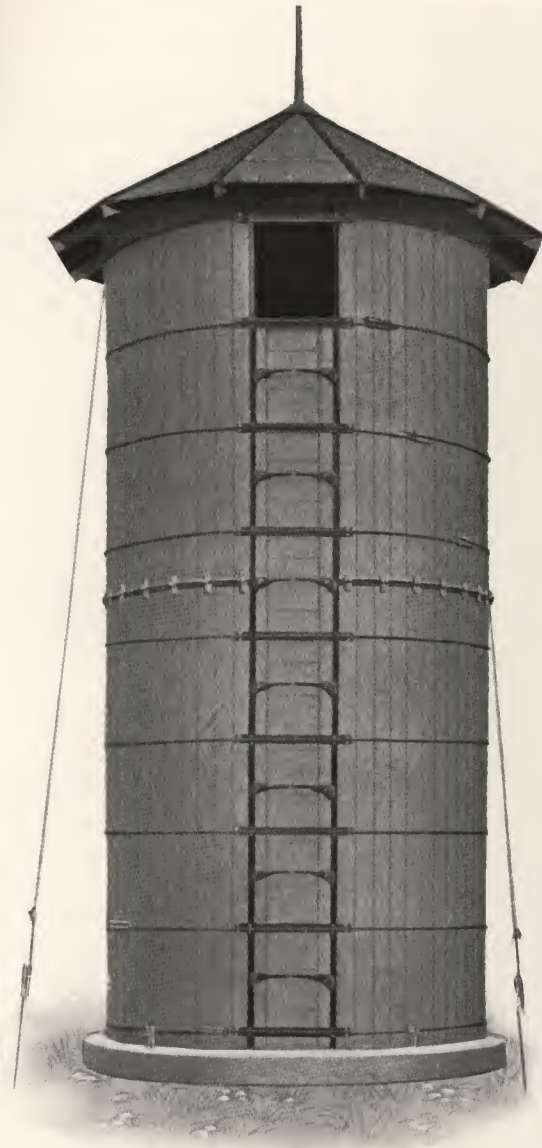
Last week a particular agent in Pennsylvania wrote in to us, sending a Redwood silo order. At the same time he said he believed in Redwood, but that two parties to whom he talked Redwood said they knew nothing of it and were afraid Redwood would not stand the climate of that State, and that all they knew of Redwood was what they had heard from this Company and our agent.

This condition needs attention, and it needs the attention of the Redwood manufacturers—it needs action on the part of Redwood manufacturers.

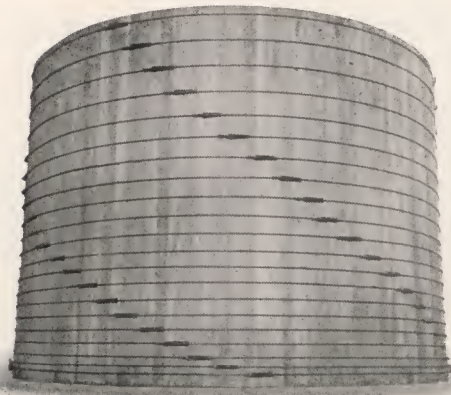
From Kalamazoo Tank & Silo Company.

In reference to your inquiry as to our opinion of California Redwood, would say that we have had quite a large experience, not only in the use of Redwood for silos, but also for tanks (as the writer of this letter has been in the tank business for approximately thirty-eight years), and we know from personal observation that there is no other wood that will stand as well all conditions of extreme heat, dry winds and the moisture from the fermentation of the ensilage as California air dried Redwood. We understand that a report made by a German professor, sent here by his Government to look over the resources of this country, showed California Redwood to be absolutely free from the fungi and the qualities that would produce decay.

Our experience in stave silos covers a period of about fifteen years—in fact, we were the first people to put on the market commercially any kind of a stave silo.



*A Saginaw Silo Made by the McClure Company
See opposite what they say about Redwood*



TESTIMONIALS

R. B. Burns, Resident Engineer of the Atlantic & Pacific Ry. Co., Williams, Ariz., writes:

"Redwood is the best and cheapest wood I know of for water tanks, as it is soft and easy to work, non-shrinkable and never rots."

A. E. Welby, Gen. Supt. of Grand Western Ry. Co., Salt Lake City, writes:

"In regard to Redwood for railroad water tanks, we have been replacing pine tubs with Redwood, and all new tanks will be of that material. We calculate that the Redwood tub will outlast three renewals of the pine tub."

W. C. Curtis, of the Southern Pacific, writes:

"For water tanks, Redwood is the most durable of any timber that I know of."

W. B. Story, Chief Engineer Santa Fe Ry. Co.:

"Redwood is largely used on this coast for tank purposes. It is used almost exclusively in our railroad work for water tanks."

Olean Brewing Co., Olean, N. Y.:

"We have in use settling, fermenting and storage tanks in our new Brewery, made of California Redwood, which gives us splendid satisfaction. We selected this wood in preference to any other for the reason that California Redwood is used almost exclusively throughout the United States for Brewing receptacles, such as settling, fermenting and storage tanks."

REDWOOD STORAGE TANKS

For Wine, Water, Oil, Etc.

Tank Stock—Redwood is particularly adapted to all kinds of tanks, and is used for water tanks, wine tanks, tanners' vats, brewers' tanks, cyanide plants, acid tanks and dyeing vats.

There is an acid in all Redwood even when the stock is seasoned, that will discolor water or other liquids when first put in the tank. To obviate this, there are various methods of treating the tank. The usual method is to fill the tank with hot water and throw in about 20 lbs. of sal soda, allowing this solution to stand for about 24 hours. The tank is then emptied and filled with clean water, which stands for another 24 hours. After drawing this off, the acid in the Redwood disappears. Sometimes this treatment is varied as follows:

"A steam coil is usually placed in the bottom of the tank and the bottom of the tank covered with about 2 ft. of water. Dissolve in this either 20 lbs. of sal soda or 7 lbs. soda ash; steam for two or three hours, but do not boil; then fill the tank and raise the temperature from 150 to 175 degrees and allow it to stand for 24 hours. Empty the tank, then fill with clean water and pour in one gallon of sulphuric acid. Be sure to pour the acid into the water and not the water on top of the acid."

Sometimes after this treatment, the inside of the tank is painted with a hot solution of paraffine, which is absorbed into the pores of the wood and coats the interior of the tank. In other instances the tank is simply whitewashed, which in a great measure counteracts the acid. You can readily understand that when concerns like the California Wine Association use Redwood exclusively for all their wines, that there is no danger of communicating any taste or color to the contents of the tank.

Redwood Export Company, 605 Welch Bldg., San Francisco, Calif.

Dear Sirs:—Complying with your request regarding the merits of Redwood lumber for tanks, would kindly advise that we issue TEN REASONS FOR USING REDWOOD TANKS, and are enclosing circular herein.

1. They are preserved by water and not rusted or corroded by it.
2. They are not corroded by sulphur or mineral water and fumes.
3. They are not destroyed by reasonably strong solutions of acids or salts.
4. It requires less labor and expense to erect them than metal tanks.
5. They are cheaper than steel or galvanized iron tanks.
6. Their durability exceeds either steel or galvanized iron.
7. They keep water cooler in summer and warmer in winter.
8. The Patent Non-Shrinking feature prevents leakage even though the tank is but partly full.
9. They are easily taken down and re-assembled at another point, which is not practical in the case of metal tanks.
10. They are fitted with round steel hoops and draw lugs.

Regarding the life of Redwood, when used in the construction of tanks, it would be a difficult matter to say how long it will last, for the reason that the use of Redwood dates only from the settlement of California, and very little data has been gathered on the subject. However, it is generally regarded as possessing the property of resisting decay to a greater extent than any other soft or semi-hard wood.

There are at the present time in California several Redwood tanks still standing that are known to have been erected from 30 to 35 years ago, and they are still sound and tight. The United States Department of Agriculture has issued a number of bulletins on the subject of the lasting properties of different woods, and Redwood has invariably been shown to last from two to three times longer than any other soft woods when subjected to the same conditions.

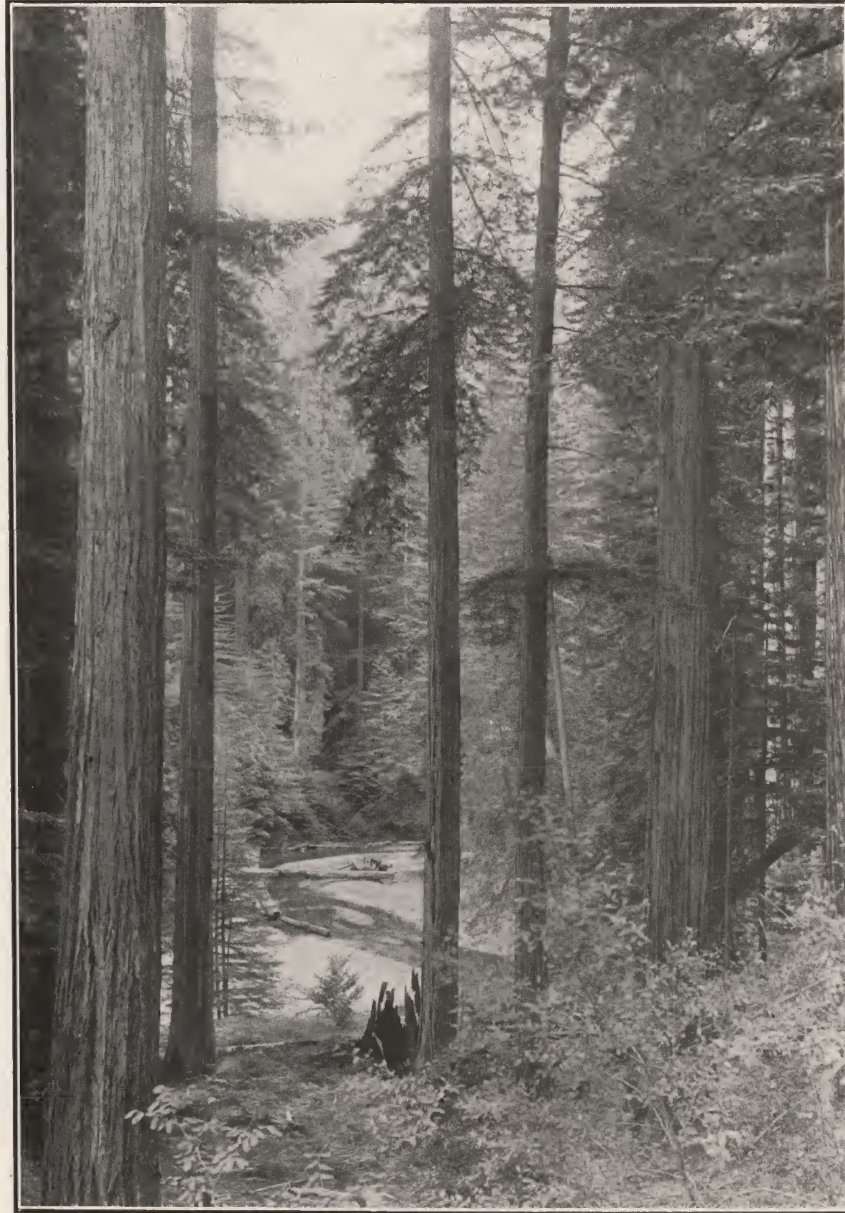
Yours faithfully,

PACIFIC TANK & PIPE CO.

UNSURPASSED FOR FOUN-
DATIONS.

MOST SUITABLE LUMBER
FOR GENERAL WORK.

HOLDS NAILS BETTER
THAN OTHER WOODS.

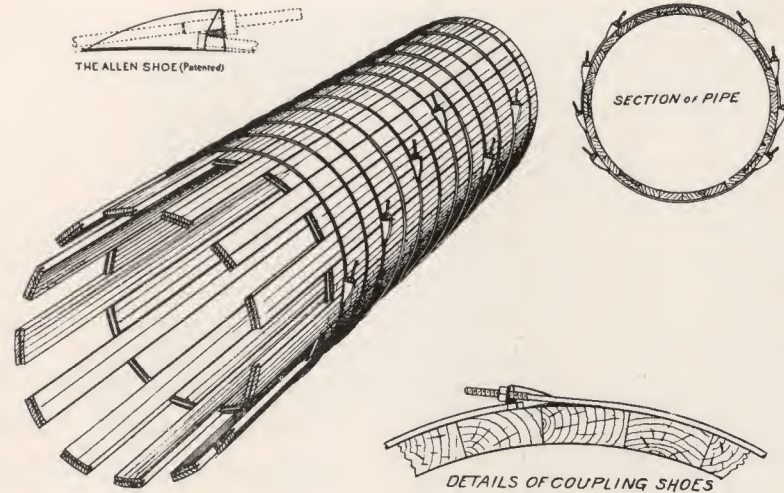


WITHOUT AN EQUAL FOR
EXTERIOR BOARDING, SUCH
AS RUSTIC, SIDING, SHAKES
AND SHINGLES, ETC.

USED FOR CAR ROOFING
AND CAR SIDING.

California Imperial Redwoods

REDWOOD STAVE PIPE



MATERIALS.

The wood used for pipe staves should be sound and clear, free from knots, shakes, pitch seams and other imperfections. It should be strong enough to resist crushing under a firm tensile strain on the bands and should not become spongy when saturated. It should not shrink or swell excessively. The finished stave should be smooth and close grained to resist percolation within the limits of pressure for wood pipe. *California Redwood* possesses all of these requisite properties. Pine, spruce and fir are being used successfully in the manufacture of pipe staves, but it is well known that the *California Redwood* under all conditions when built into pipe, has a longer life than any other.

The use of pipe made of wood for conveying water is not an innovation. Logs of wood with holes bored through them lengthwise, and joined by telescopic joints into a continuous conduit, supplied the demand in many early settlements for a means of carrying water under pressure. In excavating for modern improvements in some of our oldest and largest cities, these old wooden pipes are now found in a good state of preservation.

The modern method of banding wood staves together with round steel hoops into an economic water conduit and installing it on a large scale is decidedly a western innovation that had its inception in the demands for an economical means of conveying water long distances at a comparatively low cost for installation.

Time has proven the durability of wooden pipe to such an extent that its use has become quite general in the United States, Canada and Mexico. Its reputation has reached other countries, and frequent inquiries are received from Europe and the Orient.

The life of a wooden pipe is determined directly by the rapidity with which the staves decay. Preservatives have been used, but none are as effective as a thorough saturation of the wood by water. Wood constantly immersed in water will not decay. Staves in a pipe are saturated to some degree approaching that due to constant immersion. The degree of saturation depends largely upon the pressure under which the pipe is operating. Therefore, a pipe subjected to a light pressure will not last as long as one under heavy pressure, everything else being equal.

The staves of a pipe being subject to decay, it is more economical to use a wood that has the best resisting qualities. Of all the woods available, the *California Redwood*, because of its being almost immune from the ravages of decay, comes nearest to being an ideal wood for pipe construction.

Redwood Stave Pipe is preserved by water and not rusted or corroded by it.

Is not corroded by sulphur or mineral water and fumes.

Is not destroyed by reasonably strong solutions of acids or salts.

Its durability exceeds either steel or galvanized pipe.

Keeps the water cooler in summer and warmer in winter.

Its non-shrinkable feature prevents leakage to a great extent.

Extract from letter received from A. K. Burt, Mgr. Pipe Dept. Redwood Mfrs. Co.

Referring to our conversation over the phone this morning regarding the superiority of Redwood over when used in pipe construction, would say, that since wooden pipe was first manufactured on the Pacific Coast over 20 years ago, that to our



Redwood Pipe

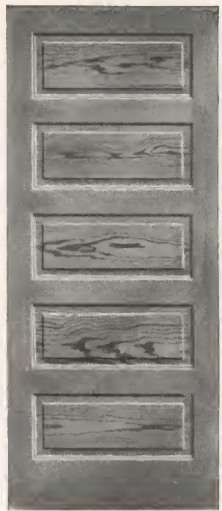
knowledge no articles of any importance have appeared in any of the engineering papers comparing the lasting qualities or durability of wood in this class of construction. At different times articles have appeared, written by engineers, showing the advantage and disadvantages of wooden pipe in various installations, and in some cases where it has failed in a few years' time and had to be replaced by another kind of conduit. If you will refer to the "Engineering News" of February 6th, 1913, you will find one of these articles written by the project manager of the U. S. Reclamation Service, at Sunnyside, Washington, where he describes the failure of wire-wound pipe used in connection with an irrigation system at Yakima, Washington, and also the behavior of larger size continuous wood stave pipe connected with the same system. All the pipe in this case was made from and the writer in trying to get a remedy for the deterioration of the wood pipe, came to the conclusion that it would last longer if coated on the outside with asphaltum or some other kind of preservative plant.

Regarding pipe lines built from we have heard of a number of failures within the last few years, one case being at Seattle, Washington, and another at Astoria, Oregon. The Astoria pipe line is the main supply for the City of Astoria, Ore., approximately eight miles long and 18" in diameter. We are very familiar with this line, as it was built by us in 1895, but after it had been in operation for some time, it began to show signs of decay, and several years ago the whole line was torn up and replaced with Redwood pipe.

Last September we received a letter from Benazette Williams, consulting engineer of Chicago, requesting information with reference to the use of Redwood as compared with other kinds of wood in pipe construction, and he found several failures in wood pipe lines made from and the two above mentioned were included in the ones he had investigated. Mr. Williams' investigation, as far as we know, did not disclose any failures in any Redwood pipe installations. Regarding pipe lines built from Redwood, we have many testimonials, although now several years old, from companies that have Redwood pipe installed in their plant nearly 20 years ago, and at the time these reports were received, we found that the Redwood staves were doing good service, and with the exception of a little repair work in some cases, the staves were as sound as the first day they were built into the pipe. We therefore believe that Redwood pipe operating under normal conditions will last 30 to 40 years and will continue to give good service and every satisfaction during that time. By normal conditions, we mean where pipe is filled with water so that the staves are kept thoroughly saturated, having the pipe buried in the ground to prevent deterioration which is sometimes due to atmospheric conditions.

For your information we herewith enclose copy of letter from Mr. Eugene Carroll, Chief Engineer of the Butte City Water Works of Butte, Mont., where we installed about ten miles of 24" Redwood pipe in 1892, and about eight miles more in 1900. We have not had a report on these lines since 1906, which in our opinion is a very good reason that the lines are still giving good service. In conclusion would say that Redwood pipe will probably last twice as long as pipe, and that the life of the Redwood pipe can only be estimated from past experience.

CALIFORNIA REDWOOD LUMBER



Redwood Doors and Drawer Cases

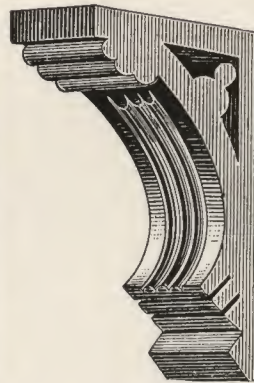
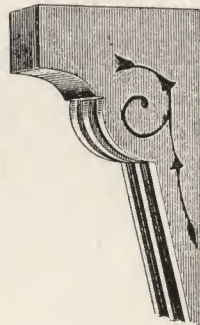
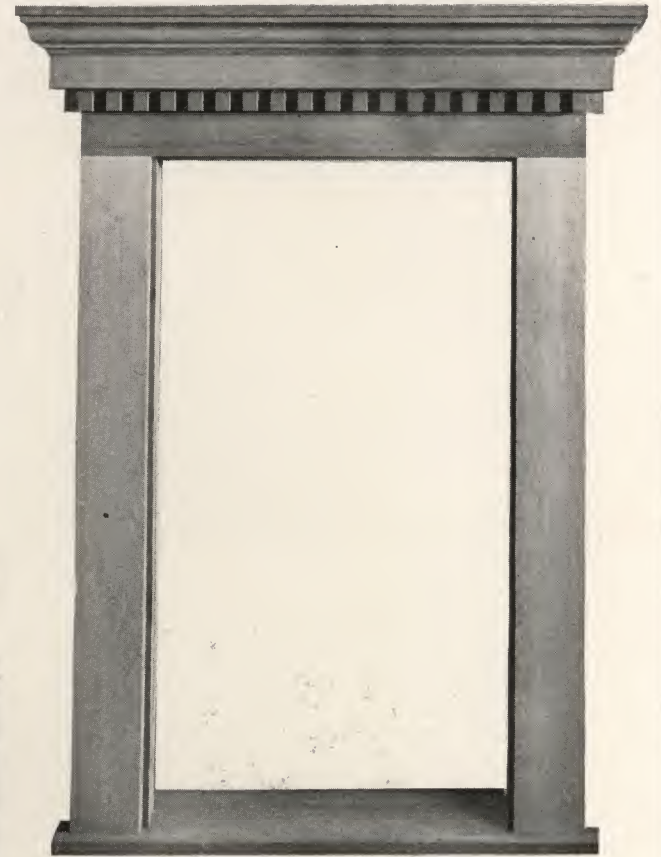
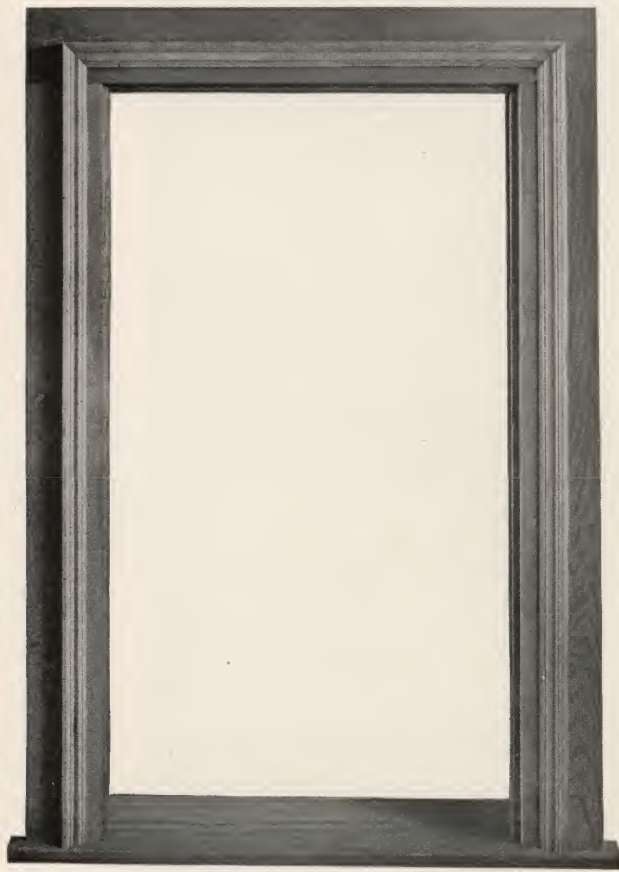


Fallen Redwoods



A Redwood Forest

CALIFORNIA REDWOOD LUMBER



Redwood Window Frames and Brackets

EVERLASTING—REDWOOD—SANITARY

Its value for shingling houses, etc., is apparent when its slowness to ignite and its durability (it will last as long as forty years) are considered. Redwood *shakes* are used extensively for the sides of houses, etc., and makes a rich and artistic effect for the covering of bungalows, suburban homes, etc.



Redwood Forest Scene

EVERLASTING—REDWOOD—SANITARY

All foreign countries have lately been using Redwood Lumber, and it has given entire satisfaction wherever shipped. Australia has taken large quantities for many years past, and the sales are constantly increasing.



A Monster Redwood Log Ready to be Peeled

Redwood is difficult to ignite, and when on fire burns slowly and is easily extinguished



Twentieth Street, between Mission and Lexington, San Francisco, Cal.

All structures opposite and north of these buildings shown in this picture, for many blocks, were destroyed by the San Francisco fire in 1906, which was stopped opposite these *Redwood* houses on Twentieth street, which is only 64 feet wide. The standing telephone poles are also Redwood.

CALIFORNIA REDWOOD LUMBER

EXTRACTS FROM AFFIDAVITS

Fire-Resisting Qualities, Etc.

From P. H. Shaughnessy, Chief Engineer San Francisco Fire Department.

In reply to your request for my opinion as to the correctness of the belief that in its *qualities of fire resistance* and slow combustion Redwood is much superior to and other soft woods, I would state that after an extended experience of more than 22 years in active connection with the San Francisco Fire Department, the results of my observation convince me that under similar conditions of heat exposure Redwood lumber ignites much less quickly and burns much more slowly than pine or other kinds of resinous, soft building woods with which I am familiar, and I am also convinced that when Redwood becomes ignited the fire is much more easily extinguished than in the combustion of or other soft building woods. The reason for these differences, I think, is largely owing to the fact that Redwood is well known as a non-resinous wood. In the great fire of San Francisco in 1906, we succeeded in finally stopping it in nearly all directions where the unburned buildings were almost entirely of frame construction, and if the exterior finish of these buildings had not been of Redwood lumber, I am satisfied that the area of the burned district would have been very greatly extended.

Decay, Dry Rot, Durability, Finish, Etc.

From Southern Pacific Company, Sacramento.

Replying to your letter respecting use of Redwood for car manufacturing purposes, would say that this company has been using Redwood for car siding, roofing, etc., for many years. When well seasoned it is equalled to any other woods, in its *capacity to hold paints and accept finish*. It is far superior to other woods as regards its *durability*. I have recently examined car siding in use for twenty years, and in no case was *decay* or *dry rot* found. Redwood is also desirable for car work and building for the reason that it is less inflammable than other woods.

In every Redwood tree Mother Nature has put a preservative which renders impervious to rot or decay any products manufactured therefrom.

CALIFORNIA REDWOOD LUMBER.

Foundations.

Extracts from
Affidavits
Regarding its
Durability and
Lasting
Qualities

From Whiting Wrecking Co., Los Angeles.

Regarding the lasting qualities of Redwood, when laid upon the ground for foundation work, or any other place where it is exposed, I believe the same will outlast any other timber. As an illustration: Last year we wrecked some old buildings where the new annex of the Hotel Alexandria is built. I was informed upon good authority that the buildings had been there for the past thirty-five years. The foundations which these buildings rested upon was 3 x 12 Redwood plank simply laid on the surface of the ground. There were at least 25% of these planks that were entirely sound. I do not think there were more than three or four planks that were decayed more than 25% of the thickness, notwithstanding that they had been exposed to the dry and damp weather for that number of years.

From Griffith Lumber Co., Anaheim, Cal.

We are sending you several pieces of 1" x 12" Redwood, which we thought might be of interest to you, as they formed a part of the sills of an old adobe house which had been a landmark in Anaheim over 40 years.

Railway Ties, Water Tanks.

From W. G. Curtis of the Southern Pacific Company.

As indicating the great life of this timber against ordinary decay, I have pleasure in informing you that we have today left in side tracks, not very much used, some Redwood ties which were put into service in 1855. On other parts of the line we have in service many ties that were laid from 20 to 25 years ago.

For the siding and roofing of cars, for the foundations, siding and roofing of buildings, and for *water tanks*, this timber is the *most durable* of any that I know of, and when used for building purposes it has the very valuable quality of not being easily set on fire, and when set on fire it burns very slowly.

Railway Ties—Immune from White Ants, Etc.

From Southern Pacific Railroad of Mexico.

In reply to your file 400 of August 22nd, requesting an outline of our experience in the use of Redwood ties in the matter of their immunity from destruction by what is known as the white ant, and their non-inflammability. The white ant is found on that part of the Southern Pacific Railroad of Mexico traversing the State of Sinaloa and the Territory of Tepic.

Through this State and Territory we have used the Redwood ties in considerable quantities, but so far we have observed no destruction by the white ant. In fact, we believe that the Redwood tie is immune from the workings of this insect.

As to the non-inflammability of Redwood, it is a well-known fact that it will char under intense heat, but that it does not burn readily.

CALIFORNIA REDWOOD LUMBER



Look at the fallen Redwood tree in the above picture, lying under the roots of the spruce tree. The stump of this spruce is six and one-half feet in diameter where it is cut off, and the rings show that it is about six hundred years old. This proves that the Redwood has been lying on the ground *all these six hundred years*, yet it is as *sound* as the day it was blown down.

Isn't the U. S. Department of Agriculture right when it says in Bulletin No. 38, "Possesses lasting qualities scarcely equalled by any other wood. While it is light and porous, it has antiseptic properties which prevent the growth of decay-producing fungi."

CALIFORNIA REDWOOD LUMBER

Immune from ravages of white ants—resists decay—is noted for its durability—everlasting.



A Large Redwood

EXTRACTS FROM AFFIDAVITS WHICH EXPLAIN THEMSELVES

Immunity from Insects

Capt. Geo. P. Ahern, U. S. A., 9th U. S. Infantry, Chief of Forestry Bureau, Philippine Islands, writes officially that

Redwood is exclusively used for cabinets and boxes for holding important documents, and that ants do not attack this wood, and that the result of 30 days' contact of various woods with ants was as follows:

Oregon Pine—Entered and eaten, a mere matter of time for complete destruction.

Bull Pine and Spruce—Eaten more readily than Oregon Pine.

California Redwood—Ants tried, but discontinued after a slight effect.

Advices from the Isthmus of Panama are to the same effect and say that this wood has stood in buildings unmolested for years while other woods have been entirely destroyed by the ants.

Durability, Etc.

From Boyertown Burial Casket Co., Boyertown, Pa.

We are pleased to testify to the qualities of Redwood lumber as applied to the needs and demands of the casket building business, and wish to state that we find it of a very durable nature, non-shrinkable and a wood that will neither warp nor twist. We use this wood in the building of our various lines of styles and are glad to recommend same to the trade. We have been using same for the past fifteen years.

Freedom from Pitch, Non-Shrinking, Non-Swelling, Etc.

From Murray M. Harris Company, Organ Manufacturers.

We have been using the highest grade of Redwood in the construction of our organs for the past five years, especially in the last two years, and have found it a wood especially adapted to our purposes. It is not susceptible to atmospheric changes, there being practically no swelling or shrinking after it is once thoroughly dried, which makes it a very reliable wood for the construction of our wind chests. It has plenty of resonance, enabling us to use it for wood pipes with excellent results. It being free from pitch, we are not troubled with sticking valves, etc.

The superlative qualities of Redwood Lumber are undisputed.

MISCELLANEOUS EXTRACTS FROM LETTERS RECEIVED

Exterior and Interior Work—Shingles

From A. Traphagen, a prominent San Francisco architect.

Redwood is the most suitable lumber for all kinds of exterior and interior work. Redwood shingles make the best roofing.

Railway Ties—Adaptable to All Climatic Conditions

From Peruvian Corporation, Ltd., Lima, Peru.

I have the pleasure of informing you that California Redwood sleepers or railroad ties are in general use on the railways of the corporation, and have given distinctly satisfactory results. In so far as the climatic conditions to which the sleepers are subjected are concerned, I would say that these vary very much on the different railways; in some cases the sleepers are subjected to excessive dryness, and in others to perpetual moisture. In some instances these conditions are observable on the same railway, where a portion of the line is situated in a region in which it never rains at all, whereas another portion is almost always snow-covered.

Pattern Work.

From Union Iron Works, San Francisco.

We would say that we have used Redwood for pattern work for the past twenty-five years, and used it almost exclusively in our shop; the only exception being for patterns that are going to have a great deal of use.

Pattern Work.

From Fulton Engineering Works, San Francisco.

We beg to state that 75% of all the lumber we use for pattern work is Redwood, and has given entire satisfaction. It is easily worked and free from getting out of shape.

Shingles—Lasting Qualities.

From A. Cottrell, Eureka.

In the winter of 1870 I shingled my house at Eureka with Redwood Shingles. They were not painted at that time. They were first painted about the year 1880, and again about 1895. The shingles were not removed from the roof of the house until September, 1912. They were in service 42 years, and on being taken off roof the shingles were found to be in first-class condition. Had they been painted when first laid and kept painted every few years, I believe they would have been good for twice that length of time.

ASK FOR REDWOOD WHEN BUILDING

Redwood siding and interior finish used in this bunga'ow.

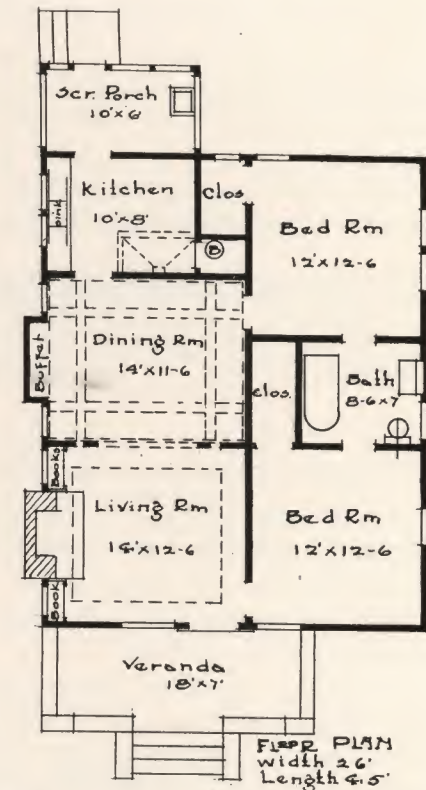


No. 533.

An inexpensive little home and one having all the conveniences necessary for a small family.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.

Many other plans and specifications, etc., can be furnished.



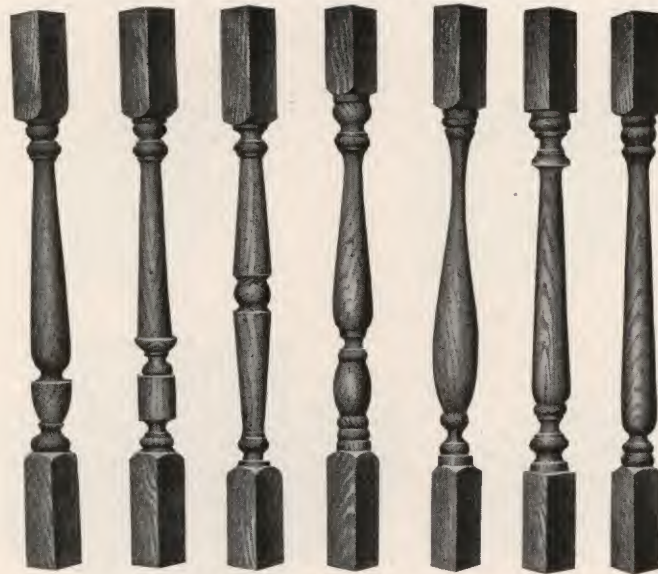
CALIFORNIA REDWOOD LUMBER



Spliced Stave



Redwood Stave Column



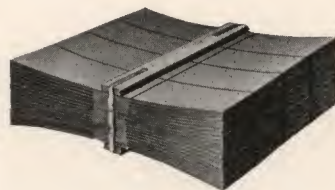
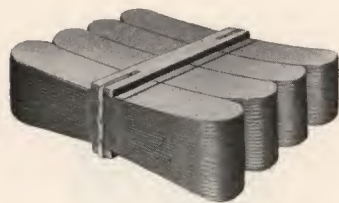
Turned Redwood Balusters



Stave



Cap and Base



Redwood Shingles

Also made in Diamond, Round, Hexagon, Cove Corner and Cove Point Patterns.



Redwood Shakes

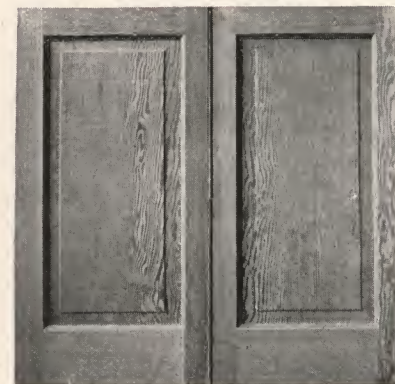
$\frac{1}{4}$ " x 6" x 36"

Shakes are only made in Redwood and make a most artistic outside finish for houses, etc.



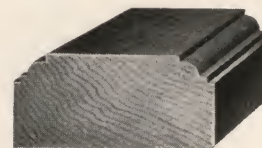
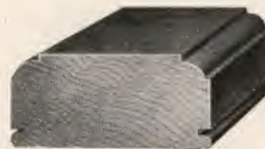
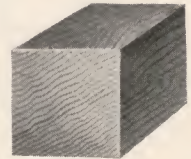
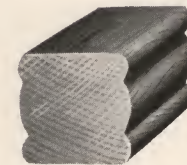
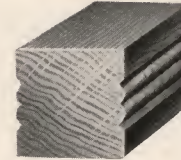
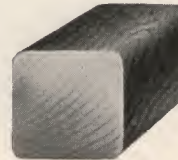
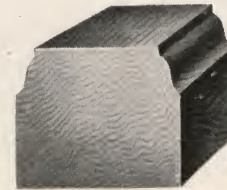
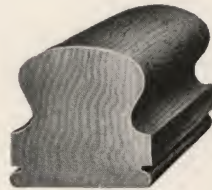
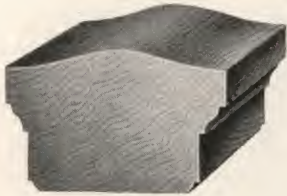
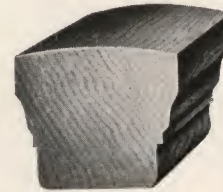
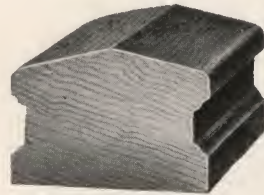
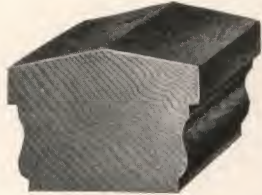
Redwood Box Newels

Stave Newels are also made.



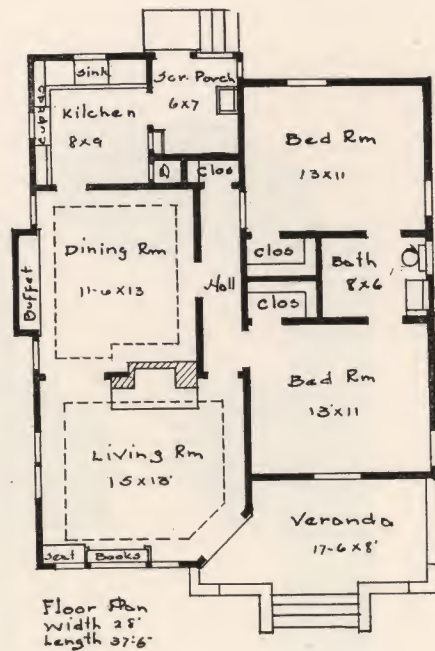
Redwood Cupboard Doors

REDWOOD PORCH AND BALUSTER RAILS



ASK FOR REDWOOD WHEN BUILDING

Redwood Siding and Shingles Used.



No. 528.

In this house the entrance to the living-room is from the corner. The arrangement as well as the design is all that could be asked for an inexpensive home. Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.

Many other plans and specifications, etc., can be furnished.

INTERIOR
WORK
OF
REDWOOD

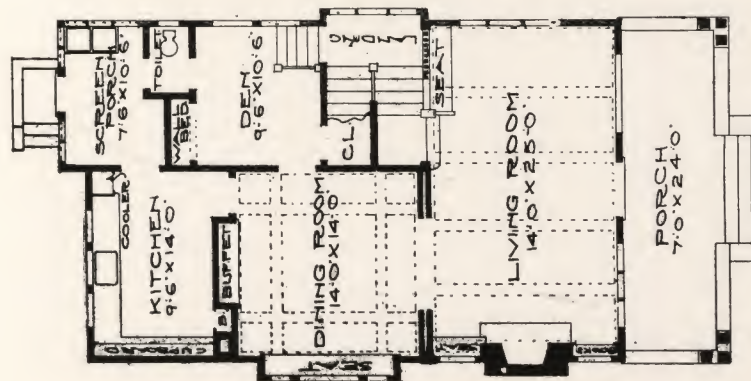


REDWOOD
SHINGLES
USED ON
SIDES
AND
ROOF

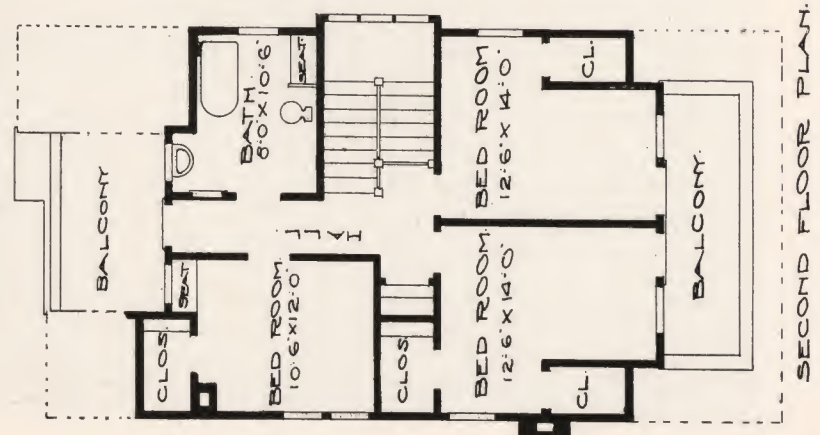
No. 100

The double gabled dormer window adds greatly to this charming home, and the sleeping balcony is also a good feature. The arrangement, as shown by floor plans, is compact and convenient.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.

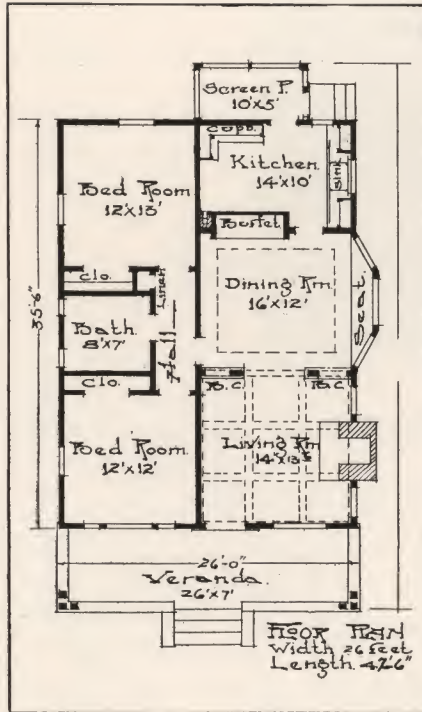


FIRST FLOOR PLAN
TOTAL WIDTH 28 FT.
TOTAL DEPTH 30 FT.



SECOND FLOOR PLAN

EVERLASTING—REDWOOD—SANITARY

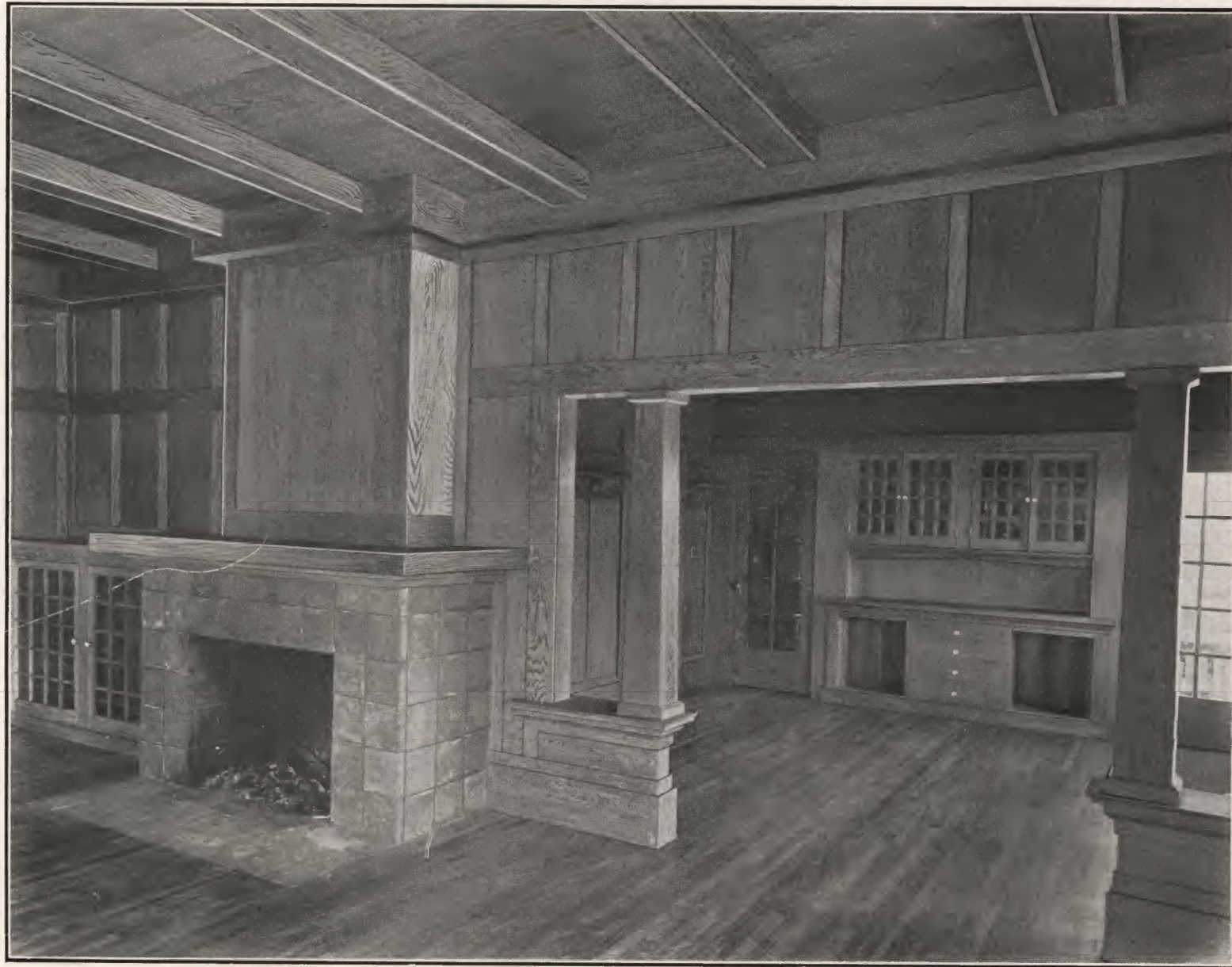


No. 242.

Redwood Shingles and rough siding have been used for the exterior of this design with a good effect. This design has a wood porch. Beams in the living-room and a wood cornice and plate rail in the dining-room, together with built-in book-cases and buffet are interior features, all of Redwood. Complete plans and specifications, either as shown or reversed, will be furnished for \$10.00.

Redwood Shingles make the best roof.

Many other plans and specifications, etc., can be furnished



Interior of a Bungalow Showing All Redwood in Natural Finish

ASK FOR REDWOOD WHEN BUILDING

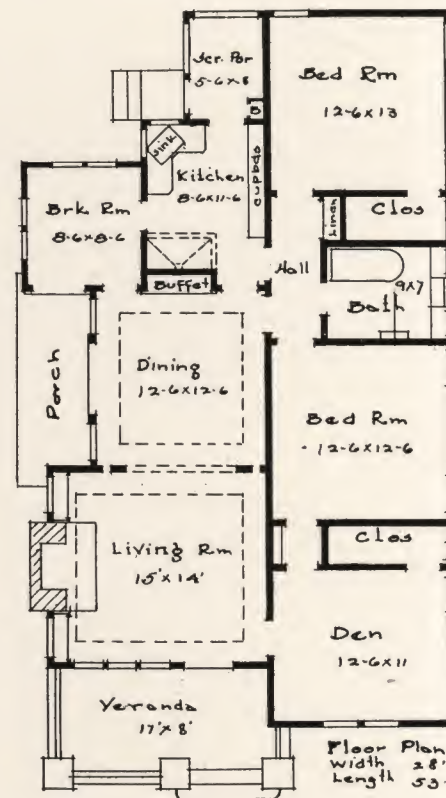


No. 532.

An attractive seven-room house, designed along SWISS lines, and one with a very convenient floor plan.

The exterior is of Redwood siding; the porch columns and buttresses of blue brick, with plastered panels, and the roof is shingled with Redwood.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.



Many other plans and specifications, etc., can be furnished.



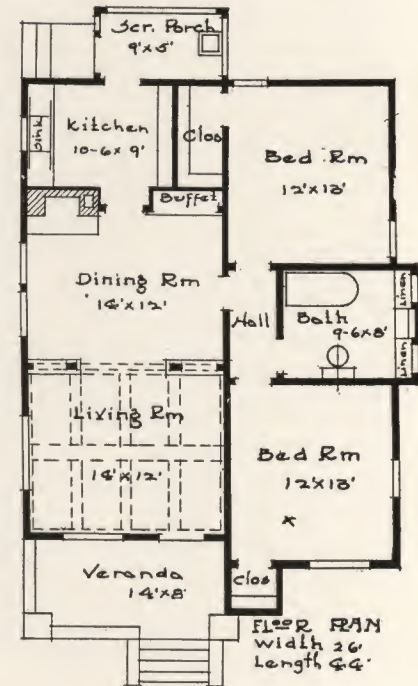
Interior of a Bungalow, Showing the Use of Redwood in Panel Work, Beams, Ceiling, Etc.

CALIFORNIA—THE HOME OF THE REDWOOD



No. 525.

A plain little five-room house, Redwood siding, shingles and interior, in which simplicity has been used throughout. Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.



Many other plans and specifications, etc., can be furnished



Another Redwood Interior

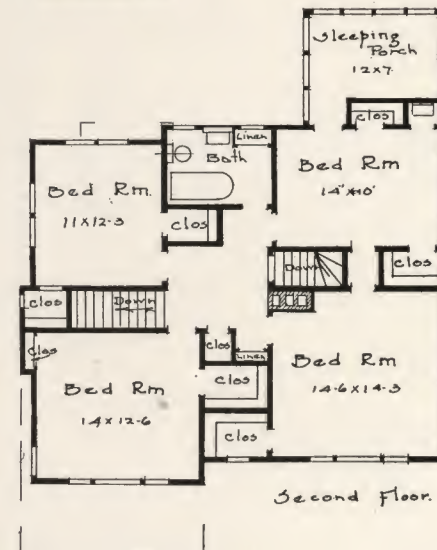
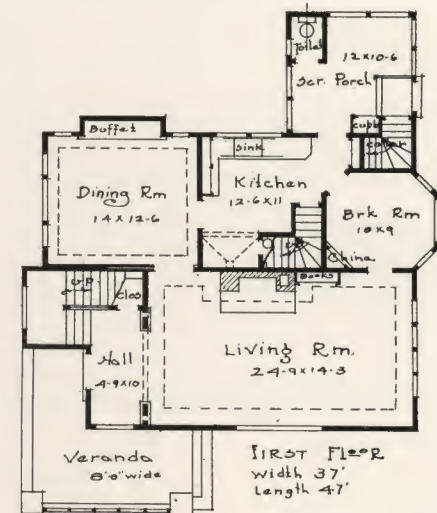
Redwood *Shakes* used on second story. Shakes are not known to be made from any other wood.



No. 514.

Here we show a plain but very convenient home, and one suitable for a large family. A sleeping porch on the second story is a feature of this home. The exterior is Redwood siding for the first story and Redwood shakes for the second; the porch columns and buttresses and the chimney are of brick plastered and the roof is shingled. Complete plans and specifications, either as shown or reversed, will be furnished for \$15.00.

Many other plans and specifications, etc., can be furnished



ASK FOR REDWOOD WHEN BUILDING



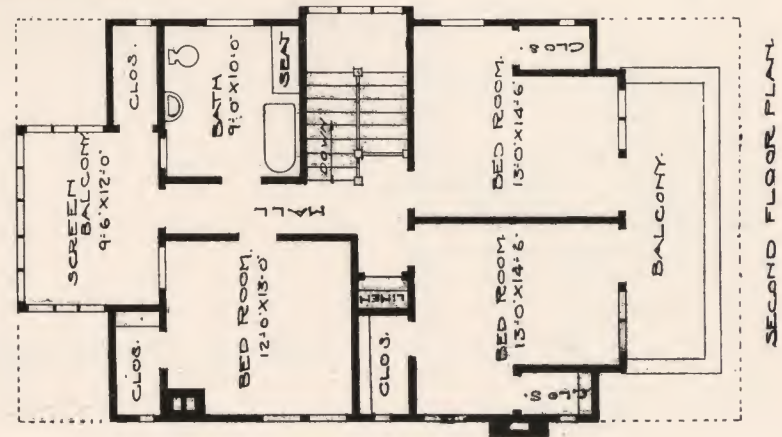
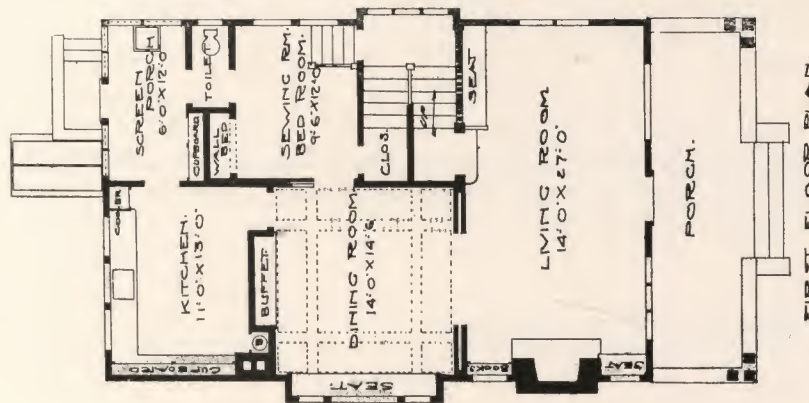
This is a plain but very neat seven-room house of one and one-half stories. The plan is compact. The entire exterior, save the chimney, is practically all Redwood. There is simplicity throughout. A large screened sleeping balcony is a fine feature.

Foundation dimensions, 28x50.

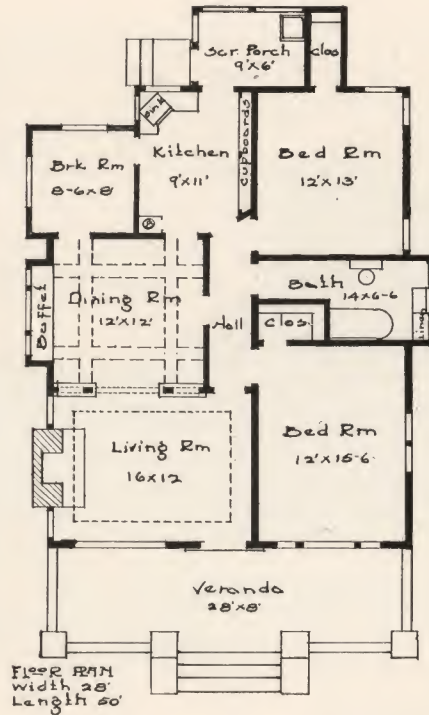
Complete plans and specifications, either as shown or reversed, can be furnished for \$10.00.

Many other plans and specifications, etc., can be furnished.

No. 119.



In actual use Redwood proves its worth as an all-'round building wood.



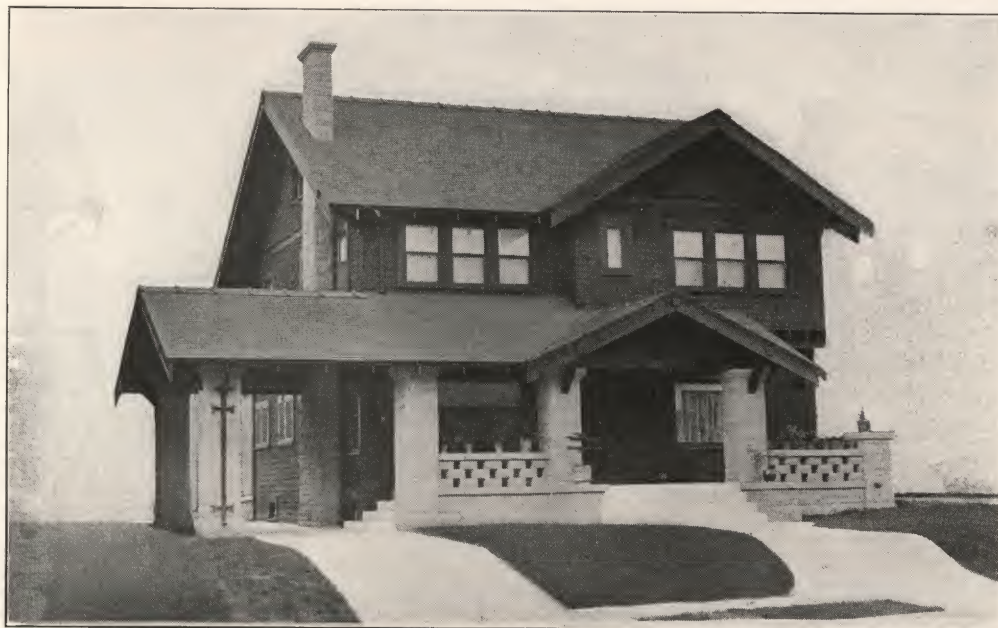
Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.



No. 531.

A very neat six-room house and one suitable to any clime. The large porch, extending the full width of this home, is an attractive feature. In this design beams are used in the dining-room and a wood cornice in the living-room, all Redwood.

Many other plans and specifications, etc., can be furnished.

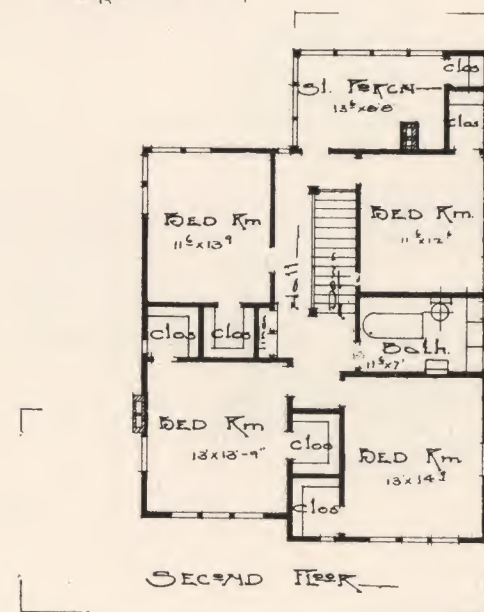
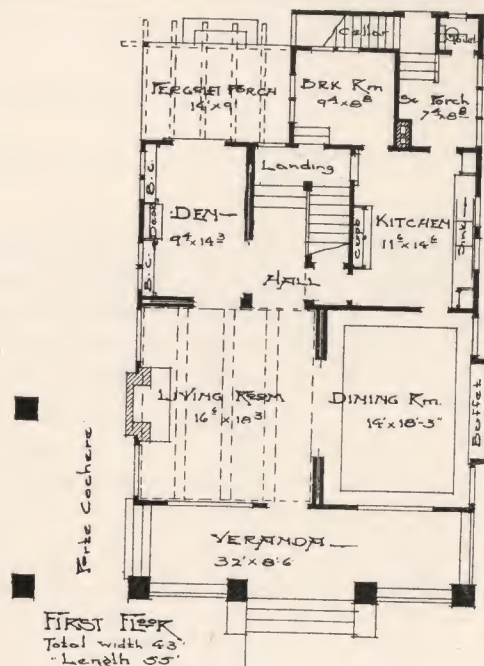


No. 402.

A two-story house, suitable for any climate or location. The porch buttresses and columns are of artificial stone; rough resawn Redwood siding is used for the exterior, and Redwood shingles are used on the roof. This house is complete in every respect.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$15.00.

Many other plans and specifications, etc., can be furnished.



Redwood used almost entirely in the construction of these bungalows.

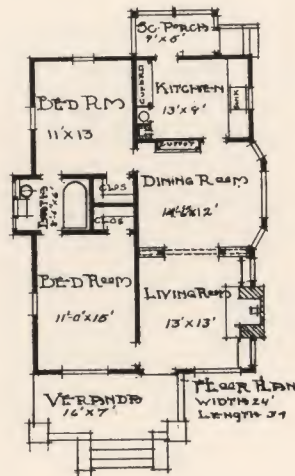


The living-room, running the entire width of the house, is a feature of this beautiful five-room home. The porch buttresses are of brick plastered; the exterior is of siding, and the roof is shingled with Redwood.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.



No. 536.



Here is a neat little five-room house suitable for a narrow lot. You will note a compact and convenient floor arrangement.

Complete plans and specifications of this house, either as shown or reversed, will be furnished for \$10.00.



No. 507.

Many other plans and specifications, etc., can be furnished.

REPORT ON REDWOOD BY THE UNITED STATES DEPARTMENT OF AGRICULTURE CONDENSED FROM
BULLETIN NO. 95

The breaking strength of Redwood is 8,000 pounds per inch, which is about 62% that of white oak, and slightly greater than that of cypress. The wood is very durable in contact with soil. Redwood has only recently been at all widely known, sawmills in the Redwood region having put in their appearance about 1850. We must, therefore, depend on recent history for knowledge as to the qualities of the wood. A Redwood picket fence at Santa Cruz, California, was said to have remained sound 61 years, and in the vicinity of old Russian settlements fence posts are shown in fairly good condition, which it is claimed were placed there about a century ago. Redwood is used for railroad ties, and in most cases a Redwood tie wears out before decay renders it useless. Redwood is an excellent culvert material because of its resistance to decay, and for the same reason it goes into bridges and trestles. In railroad buildings of various kinds it is selected for foundation material. It is used for car roofs, siding and interiors. The characteristic which fits it specially for these purposes is its small tendency to shrink or swell. This is important in freight-car material, which is liable to pass in a few days from dry summer heat to cold mountain rains or snows, or into fogs, and back again into dry airs. Redwood stands that test in a way highly satisfactory. It holds paint well, which lessens repair bills, and it has given 20 years of service in freight cars, a record that will compare well with that of any other wood. The good qualities of Redwood make it suitable for material for tanks, vats, flumes, conduits, and other structures of that class. Tan-ners' vats of Redwood last a long time, and the wood resists the action of tanning solutions. Redwood vats also meet the trying demands of cyanide plants, where ores are separated. Some of the finest, largest and best-built wooden water pipes and conduits are of Redwood. It meets the requirements so well and in so many ways that large use of it is made hundreds and even thousands of miles from source of supply. Redwood tanks for brewers are widely used, not on the Pacific Coast alone, but in Milwaukee, Chicago, Cincinnati and other eastern and central cities.

Aqueducts and flumes in connection with irrigation canals are frequently of Redwood. In that capacity Redwood has figured perhaps more largely than any other timber in the development of irrigation in California. It has given much satisfaction in the construction of large outfall sewers, where resistance to decay is of much importance. Redwood gutters and eavetroughs for houses are widely used, not only in California, but in distant regions.

Redwood has long had the reputation of being one of the slowest woods to burn. It is not denied that Redwood houses will burn, but it is asserted that they are less liable to burn than buildings of most other woods. One of the largest demands upon Redwood is for shingles, in some years exceeding 700,000,000. A Boston building with Redwood roof was still well protected against the weather after 31 years of use. It has been claimed for Redwood shingles, as for railroad ties, that they wear out before they rot. The roof on the old quarters of Gen. Grant at Fort Humboldt, Eureka, Calif., has been cited as an instance. When first occupied by Gen. Grant in 1853, the roof was doing service and the shingles remained sound more than 40 years afterward, and would probably have held their place much longer had not the nails that held them rusted off. Many were sent to the World's Fair at Chicago for exhibition. Decay had not marred them, but the weather, assisted by wind-driven sand from the seashore, had worn some of them very thin where directly exposed. Redwood door and window frames in the old fort buildings were remarkably well preserved after nearly half a century of exposure to weather.

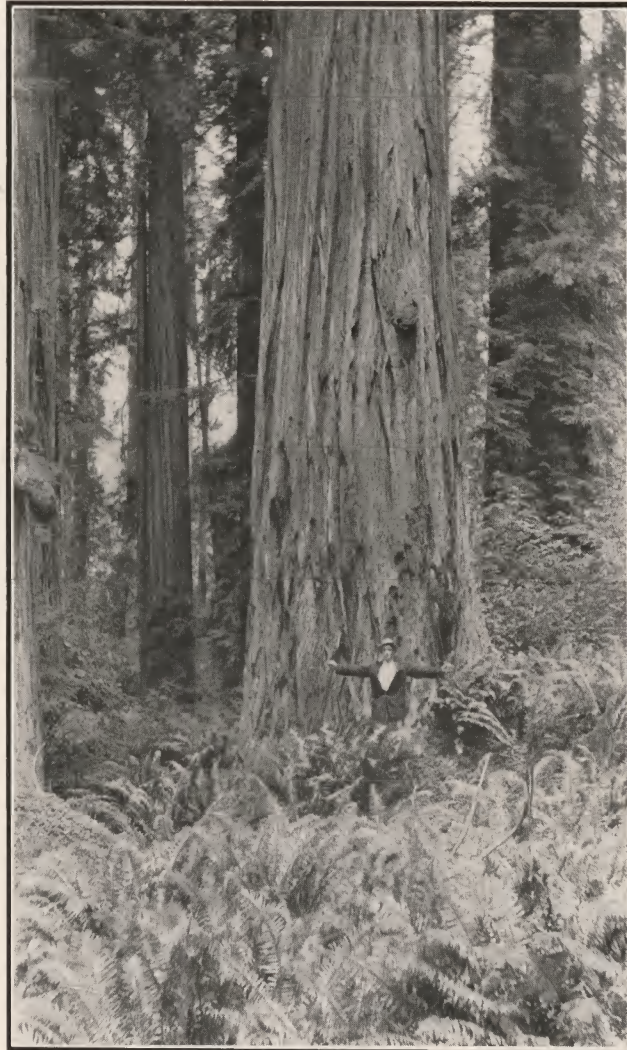
Some of the principal points about California Redwood which have been outlined in this book.

Durability.
Slow burning.
Resists decay.
Free from pitch.
Does not shrink.
Takes paint well.
Holds nails better.
Not subject to dry rot.
Best wood for pattern work.
Makes beautiful inside finish.
Most suitable lumber for general purposes.

**California
Redwood is
most desir-
able in con-
struction . . .**

Many further examples similar to those given in this book could be published, but they would be useless, as *Redwood* once tested will prove the value, and in the long run, the economic usages of this wood.

REDWOOD



EVERLASTING

SANITARY



THE A. SHAW & COMPANY CO.
No. 1 MADISON AVE.
N. Y. CITY

Redwood Manufacturers Company

Paid up Capital - - \$1,000,000.00

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SAN FRANCISCO — Millwork, 473 Bryant Street
“ “ Engineering Dept., Kohl Bldg.
OAKLAND — 57th and Lowell Streets

Main Office and Plant:

PITTSBURG, CAL.

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REDWOOD LUMBER

And its Complete Line of Products

We manufacture every article mentioned in this book

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We carry a Specially Selected Stock of Thirty million feet for the Eastern market, being at all times in a position to make Prompt Shipment.

See us about Redwood Tanks — Wire Wound

Continuous Stave Pipe — Silos, etc.